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ABSTRACT

Presented is a discussion of the use of short, filmed sequences of classroom behavior (the "Classroom Vignettes") in teacher training. The five models presented range from sensitizing teachers to the interpersonal interaction in the classroom by observing and interpreting the interaction of the film characters, to using the films as a basis for uncovering the biases and attitudes of the observer. Some of these applications can easily be included in existing programs. Others will require major changes in the approach to teacher training. The four films included in this pilot series consist of two which deal with student-teacher interactions and two show groups of students trying to resolve problems in the laboratory. The set of four are not meant to form a coherent package, but were chosen as typical of the kind of material which might be included in a full-scale program. (Author/EB)

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NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING (NARST)
Hotel Hilton-3 March 28, 1973
Detroit, Michigan 8:30 am to 9:40 am
Workshop (7:30-8:30 pm)

AN INVITATION TO INQUIRY:
The Vignettes Film Project

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The post Sputnik curriculum projects devoted a great deal of talent and money to update science curricula. However, the conviction of many project leaders that improved subject matter would dispel student discontent with science, has not provided the panecea for our problems. On the contrary, science education in the past decade and a half has moved from attempts to produce "teacher proof curricula" to pleas for "curriculum proof teachers" (1).

Although the NSF programs failed to resolve all the problems, they have provided today's science teacher with an impressive variety of materials from which to construct a wide range of programs for students with divergent interests and backgrounds. Multimedia approaches permit more individual programs to replace the traditional monolithic science classroom. However, these more democratic and flexible teaching styles require the teacher abandon traditional authoritarian roles and assume the more difficult and sensitive task of manipulating and guiding a diverse learning environment.

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As you would expect, the nature of this learning environment affects students. Research by Walberg and Anderson (2) on the Project Physics trial schools revealed several statistically significant correlations between measures of classroom climate and measures of student-learning. The degree of classroom stratification and friction consistently correlated with measures in the affective domain. Research of this kind strongly suggests that teachers must be provided with the skills and behaviors necessary to understand and manipulate the affective and interpersonal climate of their classrooms.

Traditionally, teacher training has only paid lip service to the development of interpersonal skills. Future teachers were lectured on the theories of educational and developmental psychology, advised of some handy classroom methods and materials, and then subjected to practice teaching. Those who survived were given the "Good Housekeeping Seal of Approval" and passed into the nation's schools.

These traditional skills are certainly essential for good teaching; however, now that the great teacher shortage is over, we may focus on the second order problem of the interpersonal interactions which are present in every classroom.

If we believe the ability to work effectively with kids on the interpersonal level is an inborn talent, then our task is simple -- someone will devise a screening technique, preferably a paper and pencil test. Each prospective candidate will be thoroughly tested. Those with "interpersonal talent" will be admitted to traditional teacher training programs. Subsequent

evaluative research will show the new teachers to be significantly more skillful in working with students in the interpersonal dimension.

On the other hand, if we believe most potential teachers can be trained to work effectively with kids on an interpersonal level, then an extensive program of research and development is needed to produce programs and materials.

Many educators have already recognized the value of the discussion and analysis of behavior in sensitizing students to the importance of interpersonal interaction in the classroom. Unfortunately, the most useful examples of behavior cannot be staged nor can they be predicted. It is not practical for individual educators to record on film or video tape a complete repertoie of interpersonal behaviors. Also, the opportunity for research and evaluation of "in shop" materials is limited. Thus, there is need for a major cooperative effort to develop, evaluate, and distribute aids for teacher training in the interpersonal domain.

Several packages of relatively long films of classroom interaction are presently available. Some, such as Critical Moments in Teaching, distributed by Holt, Rinehart, and Winston, are dramatizations of classroom situations. Others, such as The Classroom as a Learning Community film seminars, produced by the Educational Development Center for MAN A COURSE OF STUDY, and the classroom films produced by Harvard Project Social Studies, document entire live classes. Films of this type are useful in examining macro processes in the classroom; however,

they are difficult to use for developing particular interpersonal concepts. The sophisticated and experienced educator sees so much material in an entire class session that it is difficult to know where to start a discussion or how to keep it from rapidly diffusing. For the novice teacher there is too much information, and important observations are often missed.

For several years, Professor Watson of Harvard University has been interested in using very short film clips of small group interaction to provide a managable experience on which to focus discussions. Short clips can also be shown several times during a session to check observations and resolve rival hypotheses.

Last spring, Ted Fowler, now at the University of Houston, and I searched 10,000 feet of classroom film which had been shot in the preparation of three Project Physics training films on teaching styles. Consistent with our constraints of time and money, seven trial sequences were chosen for preliminary viewing. A group of experienced teachers and university educators chose four of the seven clips for this pilot series which we call the Classroom Vignettes. Two of the Vignettes deal with student-teacher interactions and two show groups of students trying to resolve problems in the laboratory. These four Vignettes are not meant to form a coherent package, but were chosen as typical of the kind of material which might be included in a full scale program.

The Vignettes were filmed in three classrooms across the United States. It may seem that the presence of two camera men,

two sound men, and a producer would be exceedingly obtrusive. Surprisingly, students generally adjusted easily to the cameras, lights, and mikes. As with other classroom "visitors", the students soon became engrossed in their activities and very seldom would they look up and realize that all was being recorded for posterity.

Preliminary trials suggest that materials such as these Vignettes may be useful teaching aids at many levels of interpersonal training. Five levels of training have been identified:

1-Initiating Discussions,
2-Sensitizing teachers to the interpersonal interaction in the classroom,
3-Training in observation and interpretation skills,
4-Diagnosing biases,
5-Modifying behavior.

Some of these applications can easily be included in existing programs. Others will require major changes in our approach to teacher training.

I - Initiating Discussions: We know the Vignettes stimulate excited and extended discussions, especially among experienced teachers. Philosophical biases and differences in teaching styles quickly surface. In one discussion group the physics teacher and the librarian nearly came to blows over differences of interpretation! Students in teacher training programs appear much more reluctant to draw any inferences from small samples of behavior. It would be an interesting research project to examine differences in the observations and concerns which occur in pre-service and in-service programs using Vignettes materials.

II - Sensitizing: Ted Fowler has developed a self-paced Module of group processes for the University of Houston. This module uses the Vignettes, a series of readings on group processes, and the Project Physics Teaching Styles films to introduce students to the importance of group interaction in the classroom.

The use of the Vignettes for discussion and sensitization are relatively low threat situations for the participants and can easily be integrated into our traditional approaches to teacher training. However, I believe materials such as the Vignettes may provide teacher trainers with even more powerful tools with which to expand the interpersonal styles of their students.

III - Training: It is surprising that teachers seldom receive clinical training in the skills of observing and interpreting interpersonal behavior. Nor do teachers often receive specific training to operate as leaders in group experiences. Research by Chris Argyris (3) shows that leaders in organizations require extensive training to develop the skills and trust which will allow their decision making groups to operate most effectively. Certainly teachers whose profession is devoted to the development of children must also acquire sophisticated skills in the interpersonal dimension. The Vignettes can be used in introductory exercises for improving skills of observation and interpretation. Equally important, a task oriented discussion group using the Vignettes can be taught how to provide one

another with information in supportive and nonthreatening ways. These skills directly bear on the day-to-day activity of the classroom teacher.

One of our initial concerns with the Vignettes was whether enough information is contained in a three minute film segment to allow reasonably consistent interpretations of the student behavior. In a preliminary study, 14 experienced teachers used the 26 item Bales rating scale (Form B) to evaluate characters in one of the Vignettes. Even with this small sample, the ratings were characteristically significant from random responses at the .001 level. We are presently completing the logistics necessary to establish norms for each of the Vignette characters in the Bales interpersonal space (4). There is some suggestion that males rate the characters differently than do females. Students may also be expected to provide different ratings from those of experienced teachers. This is another area for research requiring cooperation of large numbers of teacher training institutions.

Thus far the orientation of the proposed Vignette training programs has been directed largely away from the participant. Of course, it is hoped that by examining the way in which others interact, the participants will gain insights into their own behavior. This process has the advantage of being relatively low risk and nonthreatening. Unfortunately, the desired outcome is only serendipitous. If we desire to encourage interpersonal insight and growth, it will be necessary to address these concerns directly. While this results in increasing personal risk for

the participants, the possibility of significant educational innovation also increases. We must proceed slowly and with adequate training; however, an extensive literature, guidelines, and methods already are available from areas such as Social Relations.

IV - Diagnosing: In the study using the Bales scale, there were several instances when individuals rated a film character two or three standard deviations from the mean. These may simply be spurious statistical fluctuations. On the other hand, they may provide valuable information about the biases which that individual has toward certain types of students. If this is true, the technique of rating particular Vignette characters will provide invaluable input to a group which has sufficient trust and supportive skills to discuss their hidden biases. An extensive range of research is needed, first to evaluate the usefulness of this technique, and second to develop Vignettes which contain behaviors most productive in soliciting the biases pertinent to classroom teaching.

V - Modifying Behavior: This brings us to the final and most significant stage of interpersonal training for teachers - that of modifying behavior. If we reject the premise that good teaching is an "inborn talent" and sincerely accept the challenge to train teachers, we are inevitably confronted with the need to develop techniques for changing undesirable behavior which has been identified at earlier stages in the program.

It is much too early to say anything concrete in this area; however, it is clear that teacher trainers must join with their colleagues in other behavioral areas to develop programs which produce teachers capable of effective interpersonal interaction. Further, once we start down the road of interpersonal training for our students, we have also set for ourselves the task of revolutionizing the methods and skills which we as teacher trainers must bring to our profession.

Hopefully, these remarks have demonstrated that materials such as the Classroom Vignettes provide an exciting and challenging "Invitation to Inquiry". For those of you interested in joining with us in the research and evaluation of this kind of teacher training material, there will be a workshop here in Hilton 3 from 7:30-8:30 this evening. All four of the Vignettes will be shown and several NARST members who have worked with them in preliminary trials will be present.

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NOTE: A limited number of the Vignettes films and materials are available for research purposes. Write to: Gary Bates, 324 Longfellow Hall, Harvard Graduate School of Education, 13 Appian Way, Cambridge, Ma. 02138.

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1 - Romey, William D., "The Curriculum Proof Teacher",

2 - Walberg, Herbert J. & Gary Anderson, "Classroom Climate and Individual Learning", Journal of Educational Psychology, vol 59, n 6, 1968.

3 - Argyris, Chris, Intervention Theory and Method: A Behavioral Science View, Addison-Wesley, Reading, Mass, 1970.

4 - Bales, Robert Freed, Personality and Interpersonal Behavior, Holt, Rinehart and Winston, New York, 1970.

Bates (14/23)

CHARACTER #2 (Boy 1 - "Moon Mullin")

Fig 2a - UD Dimension

M = 8.07
s = 2.93
N = 14

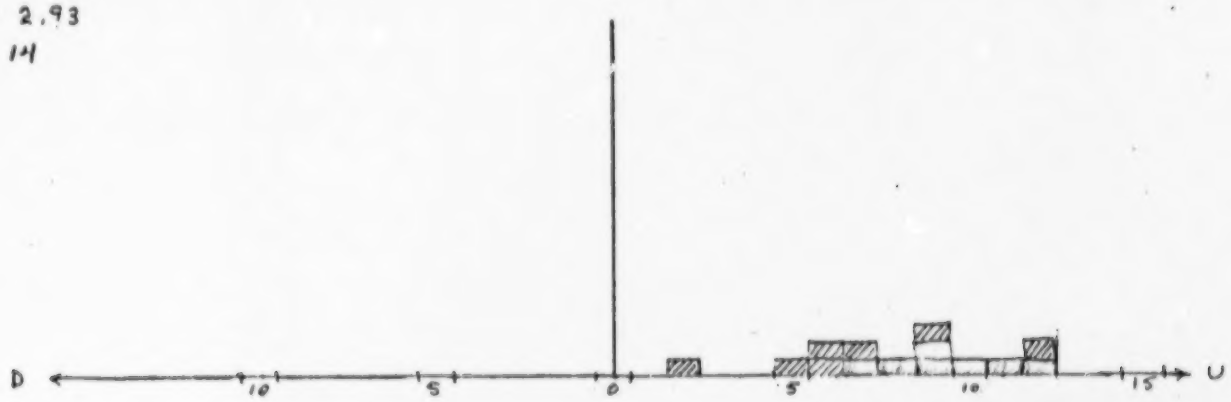

Fig 2b - PN Dimension

M = 3.64
s = 3.58
N = 14

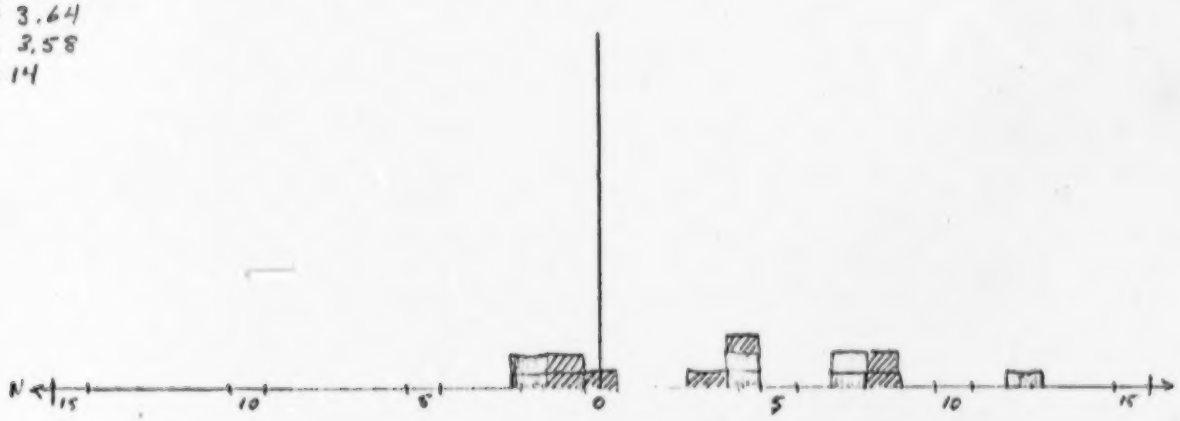

Fig 2c - FB Dimension

M = 3.71
s = 2.28
N = 14